

the equatorial trough as the general separation between the Northern and Southern Hemisphere, and including the polar areas of low pressure. Buchan's chart of isobars for March shows three centers of high pressure in the Southern and four in the Northern Hemisphere; two ovals with three centers of low pressure in the Northern Hemisphere, one in the south polar region, and one equatorial trough, having two or three centers within it.

The relation between special troughs and storm centers over the Atlantic Ocean is explained on page 6 of the MONTHLY WEATHER REVIEW for January, 1894. Troughs occur very frequently over the eastern portion of the North American Continent.

### CORRIGENDA.

Mr. Curtis J. Lyons desires to make the following corrections applicable to the Honolulu records for some time past: The wind force is given on the Beaufort scale: 0-12. At

the head of the column the word maximum should be omitted.

The mean dew-point and relative humidity for the month is as given by the formula:

$$(6 \text{ a. m.} + 9 \text{ a. m.} + 2 \text{ p. m.} + 9 \text{ p. m.}) \div 4.$$

The ground is 43 feet and the barometer cistern 50 feet above sea level.

The mean pressure for the month, as deduced from twenty-four hourly observations, is 0.01 higher than the mean pressure at 1 p. m. Greenwich time, or 2:30 a. m. Honolulu time.

The mean of maximum temperatures for February, 1899, is 78.5°, and not 77.0°.

February REVIEW, page 41, second column, third line from bottom, for "12th" read "11th." Last line, for "night" read "morning."

Page 42, second column, first line, for "night" read "morning." Second line, for "Sunday" read "Saturday."

Page 42, first column, table, for Galveston, instead of "6" read "8° F. at 10 a. m. of the 13th; departure below the previous lowest, 3° instead of 5°.

## THE WEATHER OF THE MONTH.

By ALFRED J. HENRY, Chief of Division of Records and Meteorological Data.

March, 1899, was for the most part a wintry month—cold and disagreeable in the northern sections, with a surfeit of rain in the southern Appalachian region, and frequently alternating periods of fair and stormy weather from the Atlantic to the Pacific.

Notable characteristics of the month were: (1) The termination of the drought in California; (2) the large number of lows that moved from the Pacific to the Atlantic; and (3) the shifting of the Plateau high to Manitoba.

The rains in California up to the 15th of the month had been scanty and disappointing. In southern California the water famine had begun to assume serious proportions, the supply for domestic purposes in some places being inadequate to the demands. The rains from March 15 to the end of the month were especially timely. Persons familiar with the conditions that have existed during the last eighteen months assert that if rain had been delayed ten days longer there would have been total failure of all crops, as was the case in some localities last year.

The number of lows that passed across the country from the Pacific to the Atlantic was much greater than usual for the season, and the paths traveled were considerably south of the normal course. Six storms in all can be traced from ocean to ocean, each of which was accompanied by heavy and quite general precipitation in some part of its course. An unusual condition, viz, the fall of rain or snow simultaneously from the Atlantic to the Pacific, was observed on the morning of the 14th, the storm center being in western Kansas and eastern Colorado. It is quite likely, however, that the precipitation in some parts of the storm area was due to the influence of secondary depressions that had either filled up or united with the main storm on the morning of the above-named date.

Severe local storms and tornadoes occurred on the 3d and 4th in South Carolina, Georgia, Tennessee, and northern Alabama; on the 15th in northern Alabama and Georgia; on the 18th in Alabama, Georgia, Mississippi, and Arkansas; on the 22-23d in Georgia; on the 27-28th in the Carolinas, Georgia, and Alabama.

On the 3d and again on the 27th local storms began in the Carolinas before they were observed in Georgia and Alabama. The position of the general storm center with reference to the region of severe local storms, however, remained nearly constant.

The general character of the month will be seen from a study of the following tables:

### TEMPERATURE OF THE AIR.

*Average temperatures and departures from the normal.*

Districts.	Number of stations.	Average temperatures for the current month.	Departures for the current month.	Accumulated departures since January 1.	Average departures since January 1.
		°	°	°	°
New England .....	10	33.0	0.0	- 2.2	- 0.7
Middle Atlantic .....	12	40.3	+ 0.9	- 5.7	- 1.9
South Atlantic .....	10	56.0	+ 2.3	- 3.0	- 1.0
Florida Peninsula .....	7	67.1	+ 1.4	- 0.2	- 0.1
East Gulf .....	7	59.8	+ 1.5	- 8.6	- 2.9
West Gulf .....	7	59.4	+ 1.6	- 8.2	- 2.7
Ohio Valley and Tennessee .....	12	43.8	- 0.2	-10.4	- 3.5
Lower Lake .....	8	31.6	- 0.7	- 5.8	- 1.9
Upper Lake .....	9	31.5	- 5.0	-11.8	- 3.9
North Dakota .....	7	8.8	-11.7	-12.8	- 4.6
Upper Mississippi .....	11	29.5	- 6.4	-12.2	- 4.4
Missouri Valley .....	10	27.6	- 8.3	-13.1	- 4.4
Northern Slope .....	7	21.3	-10.6	-12.6	- 6.2
Middle Slope .....	6	38.0	- 4.3	-12.4	- 4.5
Southern Slope .....	6	49.6	- 0.8	-11.5	- 3.8
Southern Plateau .....	9	51.5	- 0.3	- 1.5	- 0.5
Middle Plateau .....	13	38.9	- 0.9	+ 2.3	+ 0.8
Northern Plateau .....	10	36.0	- 2.2	+ 1.8	- 0.6
North Pacific .....	9	42.7	- 2.6	- 2.3	- 0.8
Middle Pacific .....	5	51.2	- 1.1	+ 1.7	+ 0.6
South Pacific .....	4	55.4	- 1.2	+ 1.9	+ 0.6

### PRECIPITATION.

The numerical values of total precipitation and total depth of snowfall are given in Tables I and II, and the geographic distribution is graphically shown on Charts III and VIII. The depth of snow on the ground is also shown on Chart IX.